



Disappointment, Misunderstanding and Expectations: A Gap Analysis of NSSE, BCSSE and FSSE

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Note: All item and scalelet mean differences are significant at $p < .01$, with two exceptions: the scalelet MI in Tables 2 and 3 are significant at $p < .05$ (indicated by “**”).

Introduction

The postsecondary undergraduate educational experience takes place in an environment rife with expectation. Those “bright college years,” destined to be memorialized and celebrated, attract a cluster of sociocultural images and resonances, some realistic and some fanciful. Students see these years as a unique time of opportunity and unprecedented autonomy, a psycho-social moratorium where possibilities open up and they can grow into their own adult skins. And while matriculating students look forward to what awaits them, the other group intensely involved in the educational process — the faculty — looks back, projecting their own experience-derived expectations upon undergraduates who, in fact, may be experiencing a generationally-different world.

What should new students expect to find when they begin — and settle into — this new, but temporary, university life? And how will those expectations change as they are met, surpassed, or frustrated? What should faculty expect of students, and will they or should they measure up to faculty models? To what extent can faculty expectations serve as a control or calibrating influence on the subjective expectations and experiences of students? These are questions that are of vital interest to those attempting to understand the link between student engagement and student success and, in this paper, these questions are explored through three surveys—the National Survey of Student Engagement (NSSE), the Beginning College Survey of Student Engagement (BCSSE), and the Faculty Survey of Student Engagement (FSSE).

The BCSSE collects data on the expectations that beginning students have about university. The NSSE covers similar topics from the reflective point of view of students who are in their first year of university. Between the two surveys lies a “disappointment gap,” a measure of how far students’ actual experiences fall short of their original expectations.¹ Between the NSSE and the FSSE, which records instructors’ impressions of students’ experiences and motivations, lies a “misunderstanding gap” that spans the distance between what instructors

¹ It is, of course, true and quite common that this ‘disappointment’ is actually a positive surprise in some aspects: the undergraduate experience can easily exceed expectations. We focus on the negative possibilities mostly because they represent the actual risk of lowered success. Excess delight is rarely a deterrent to engagement in the way that frustration often can be.

think students are, or should be, accomplishing and what students believe they have accomplished or will accomplish. Moreover, the two gaps converge or overlap when students' expectations about interactions with faculty confront the reality of university practice. One of the biggest disappointments for students lies in access to faculty, and one of the biggest misunderstandings is whether that access is adequate or deficient.

These gaps are not unambiguous measures of institutional or operational failure, because expectations can be unrealistic or even wrong. How the information that underlies the process of forming one's expectations is understood and the clarity with which those expectations are communicated both limit the possibility that the expectations will be met. What we've called disappointment is, in part, an inevitable consequence of the unpredictability of the future and of the fallible communications that contribute to misunderstanding. But such disappointment — whether rational or irrational, avoidable or inherent — can be a powerful deterrent to engagement in the university experience, and misunderstandings can signal a disconnect in the pedagogical process that hampers its effectiveness. It is, therefore, important to understand the nature of these gaps and the factors that affect them. To put it another way, the causes of these forms of disengagement come in three classes: inevitable, intentional, and unintentional. We can do nothing about the first, by definition. The second represents choices that may be sound for other reasons (if only because expectations are rarely 100 per cent accurate, which is one of the primary meta-lessons of the postsecondary experience). But the erosion of engagement by unintentional factors represents a gap between existing and potential performance that we should be able to close or limit. A better understanding of the sources of disengagement will allow us to choose more successful strategies to enhance engagement.

Expectation and Experience

The expectations students bring to university have several aspects. Students have expectations about the services, opportunities, challenges, and lifestyle that university will offer to them; expectations about what they themselves will be able to contribute; and expectations about the demands that the university experience will place upon them. Based on those expected inputs to the educational process, there are also expectations about outputs: learning outcomes, skills, career advancement, friendships, memories. Each

kind of expectation conditions the perception of actual experience albeit in different ways — and there is constant interplay between them. Students with loftier or more detailed long-term goals may expect to work harder, make more use of research facilities, and achieve higher grades than the students more concerned with the social aspects of university life. Although it is important to recognize the spectrum of expectations, the distinction between types is less important than the interaction of expectations with real experiences, and the effect that unfulfilled expectations can have on student engagement and student success.

Theories rooted in the social and behavioural sciences suggest that expectations can serve (a) “as sense-making or interpretive schema for filtering experience to determine what is or is not appropriate and meaningful activity, and (b) as stimuli or deterrents to behaviour” (Olsen et al., 1999, p. 5). Expectations can also form the basis for a kind of implicit contract between an individual and, in this context, the institution in which he or she participates in order to gain experience and skills (Kuh, Gonyea, & Williams, 2005, p. 36). Students choose a university in part because they feel that their choice will offer them more in terms of educational gain and personal or career advantage. If the gain experienced fails to live up to expectations, this contract is broken, or at least stressed, and such stress is always a hindrance to continuing engagement.

Scholarship continues to enhance the understanding of the dynamics of the relationship between expectations and experiences. Braxton, Vesper, and Hossler (1995) found empirical support for the effect of student expectations on students’ successful integration into the academic and social aspects of campus. In other words, the more congruence or “fit” there was between a student’s expectations and the experiences offered by the institution the more likely the student was to persist in his or her studies. One study found additional support for the “freshman myth” that “students’ expectations for themselves and the academic demands of college were greater than what they subsequently experienced” (Olsen, Kuh, Simmons, Buu, Connolly, Schilling, et al., 1999, p. 20). This research also confirmed the link between expectations and experiences. However, according to Olsen et al., “while findings support the widespread contention that student expectations of college are critical to students’ experiences in college, it is also the case that students’ experiences on our campuses — in our classrooms, residence halls, and student unions — have the greatest and most immediate impact on academic success and persistence” (pp. 22–23).

In *What Students Expect from College and What They Get*, Kuh, Gonyea, and Williams summarized the state of research on expectations and experiences by suggesting that “expectations and experiences individually and together affect key outcomes of college, including academic performance, persistence, and self-reported gains” (p. 39). Using data from the College Student Expectations Questionnaire and the College Student Experiences Questionnaire to explore the link between expectations and experiences, Kuh and his colleagues found that a first-year student’s abilities, aspirations, and motivations had more influence on expectations than any other student characteristic, including race, being a first-generation college student, or institutional characteristic. They also found that, in a kind of self-fulfilling prophecy, first-year students with relatively high expectations were more likely to report fulfillment of those expectations (see also Olsen et al., 1999). Institutional type and student background characteristics did little to influence this relationship. They concluded

... that colleges and universities need to be as effective and persuasive as possible in explaining to students what is required to succeed in college and then holding students accountable for those expectations once they arrive (p. 58).

Lapses in such explanations and failures to maintain that accountability are, therefore, especially hazardous to the practical health of the educational process. If a student’s desire to succeed is so important to that student’s success, then it is vital that all students understand what success entails—they must realize clearly what they are getting into—and achievement relative to the standard of success be clearly communicated—they must be aware of how well they did.

The interplay between expectation and experience constantly evolves, but it is in times of significant transition, like the first year of university, when the relationship has more powerful effects, because the stress of a transition inevitably raises the introspective questions: Have I made the right choice? or, to put it in a more provocative form: “Have I made a mistake that I need to correct? At the same time, successful management of the transition sets the pattern and baseline for subsequent experiences — first year is the foundation upon which a student’s university career is built. So it is important to understand not only whether initial experiences match up to expectations (and thus whether they are reinforced or strained by

assumptions and preconceptions) but also whether those experiences are being realistically evaluated or simply suffer in comparison to expectations.

Students, especially first-year students, are likely unfamiliar with university practices and can be expected to assess their experiences through the newcomer's perceptions. It is tempting, then, to calibrate student-reported experiences by calling in the professionals, that is, the faculty who spend their adult lives assessing student performance. Although each student undergoes first-year only once, instructors see first-year students go through essentially the same process on an annual basis and build up a large reservoir of knowledge— and expectations — about what a typical first-year student encounters and accomplishes. Students have only expectations, formed outside the postsecondary environment, to guide them in evaluating their experiences; faculty have “seen it all before”, from the inside of academe, and can avoid the unrealistic expectations that might be formed in anxious high-school minds.

And yet, there is nothing inherently objective about the perceptions of a tenured professor: a Ph.D. does not grant immunity to personal bias or limitations of perspective, even if it likely required developing an awareness of the dangers and unreliability of subjective assessments. Moreover, generational effects, curricular change, and technological and social evolution mean that the first-year experience is not really the same each year, even though it is human nature in the faculty ranks to view it as such. In the end, faculty expectations may not be any more reliable than student expectations when analyzing student experience — more likely, both are unreliable, but for different reasons.

Some differences of opinion and perception between instructor and student can be settled easily and finally — the assignment of grades is a subjective process that has been institutionalized and operationalized to yield an objective result. But just as most teachers will admit to continuously learning from their students, so too must they admit when pressed that they cannot be sure their perceptions are wholly accurate, even if they claim a better batting average than the undergraduate students. Identifying the gaps in perception between students and faculty members does not resolve the question of who is correct; rather, it highlights where the misunderstandings lie and suggests where better communication could enhance the outcome of the educational process.

Methodology

The NSSE surveys provide an ideal tool to examine these gaps between expectation and experience, since they pose a similar set of questions to students before and after entering university and to the faculty who teach those students. The University of Guelph has data sets from the three surveys that facilitate direct comparison. BCSSE was administered in September 2005 to a cohort of entering students; 798 of those respondents also completed the NSSE toward the end of their first year in March 2006. This subgroup of respondents thus forms a significant longitudinal sample bracketing the first-year experience, and from which measures of response consistency can be extracted.

FSSE was administered to a sample of 401 Guelph faculty in March 2007. Because the student experience changes so much through a program of study, we divided the faculty respondents by teaching load and selected only those 97 respondents who primarily taught first-year courses. It is these faculty whose perceptions of student experience should be dominated by actual contact and interaction with first-year students. Although this survey was not precisely contemporaneous with the NSSE/BCSSE cohort, it is reasonable to assume that faculty perceptions do not vary excessively from year to year. The NSSE and FSSE results offer a comparison, not of individual respondents' evolved perceptions, but of the same process from the perspective of different participants.

Analytical Model

Not surprisingly for a research project based on a specific survey format, the NSSE project has developed a rich literature interpreting its research instruments. This literature focuses not only on the extraction of reliable meaning and sometimes subtle insights but also on the practical application of results in diverse academic environments. NSSE is intended to be used at all levels of the university experience — from the assessment of individual departments (where small sample sizes become a significant issue) to state or provincial system-wide analysis (where commensurability across distinct institutions can be a concern). Much of the initial NSSE literature focused on identifying and applying a suite of five

benchmarks, aggregate measures that loaded together and conveyed related impressions about aspects of educational engagement (Kuh, 2003).

Subsequent research has focused on identifying finer-grained metrics that might illuminate performance and guide subsequent initiatives. Gary Pike decomposed the broad benchmark categories into twelve subcategories or “scalelets” (Pike, 2006a; Pike, 2006c). Each scalelet consists of an aggregate of 3 to 10 survey items (the scalelets also encompass some items not included in the benchmarks). The overall schema of scalelets within benchmarks follows:

- Level of Academic Challenge
 - Course Challenge
 - Writing
 - Higher-Order Thinking Skills
- Active and Collaborative Learning
 - Active Learning Experience
 - Collaborative Learning Experience
- Student Interaction with Faculty
 - Course Interaction
 - Out-of-Class Interaction
- Enriching Educational Experiences
 - Varied Experiences
 - Information Technology
 - Diversity
- Supportive Campus Environment
 - Support for Student Success
 - Interpersonal Environment

Pike has argued persuasively that the scalelets have greater explanatory power and provide deeper insights than the benchmarks and, moreover, that they produce stable and reliable means for analysis (Pike, 2006c). Pike was also able to relate his scalelet scores to performance on NSSE “gains,” that is, learning outcomes. These two items (*Gains in Practical Skills* and *Gains in General Education*) are also aggregated from NSSE items (Pike 2006a; see also Kuh, Gonyea, & Palmer, 2002) in the same manner as the scalelets.

Because this paper focuses on the gaps between the surveys and the pedagogical barriers they imply, we have chosen to employ Pike’s theoretical framework as the primary basis for our analysis rather than devise a new method of breaking down and aggregating the results. Accordingly, our Analysis section is structured around the scalelets and outcome measures, with the emphasis on the gaps between the surveys. Although this choice raises some problems of applicability to the three surveys, it avoids the complications of constructing a new set of components or factors.

Survey Comparability

The first issue in attempting to compare the three surveys is that the NSSE scores must be compared across two gaps of different shape and structure: the NSSE/FSSE comparison involves two independent and discrete samples, while the NSSE/BCSSE comparison involves successive surveys of the same respondents. Consequently, we had to calculate all NSSE means and aggregate scores twice — once with pairwise exclusion of missing values for comparison with BCSSE, and once without for comparison with FSSE.

The second issue is that not all questions comprising the scalelets are present in all three surveys. Specifically, while the NSSE and the FSSE cover the same full set of scalelet components, some are missing from the BCSSE. Two of the scalelets (Higher-Order Thinking skills, Intrapersonal Environment) have no items at all in the BCSSE questionnaire, two others (Writing, Varied Experiences) are missing a majority of their components and, finally, two scalelets (Course Challenge, Out-of-Class Interaction) lack one item in BCSSE. The remaining six scalelets and the two outcome measures are identical across all three surveys. For those scalelets missing only one component, we have calculated the NSSE/BCSSE aggregate scores using only the items present in both surveys.

Only 2 of the 9 components of the Varied Experiences scalelet are present in the BCSSE, which severely restricts the coverage of the scalelet and unavoidably changes its emphasis; therefore, we have chosen to ignore that scalelet for BCCSE/NSSE purposes. While the Writing scalelet is missing three of five items in BCSSE, we have retained it and calculated two aggregates as above because the three missing items are essentially the same question applied to different scales: “How often have you written a paper or report of 20 pages or more/ between 5 and 19 pages/ less than 5 pages?” The two remaining questions probe different aspects of writing skills and writing challenges. In a sense, only one-third of the semantic breadth of this scalelet is missing from BCSSE, and we have chosen to include it in restricted form in the BCSSE/NSSE comparison.

There is also some inter-survey variation in question wording, and these framing differences might undermine the process of comparing responses. One variation is inescapable, given that the BCSSE is a future-oriented survey, probing plans and intentions, while the others are reflective of past experiences or observations. For example, in the BCSSE section titled University Expectations, respondents were asked “How important is it to you that you do the following at this university during the coming school year?” (The activities in this question include “making a class presentation” “discussing grades or assignments with an instructor” and so on). The question asks the respondent to assess the value placed on engaging in an activity. In contrast, in the NSSE, the similar question asks how often the respondent has done the same list of activities. This form of the question requires no value assessment, only an enumeration and a possibly inaccurate recollection. Similarly, in FSSE, the questions are framed in terms of the faculty member’s impression of how often a typical student has done the activities, which requires both an estimation and an enumeration, but no assessment of importance or worth.

The BCSSE form does not explicitly ask respondents about expectations per se. A respondent might consider it very important to engage in an activity, and yet have low expectations of actually doing that activity. For example, a deeply indebted mathematician might consider it very important to win the lottery, but have virtually no expectation of becoming instantly rich. But the wording of the question emphatically emphasizes the subjectivity and personalization of the activity, as in “How important is it *to you* that *you* do the

[activity]?” Thus, while the BCSSE scale may not directly measure expectation of accomplishment, it certainly involves an element of desire and value.

None of the activities depicted are inherently unlikely or inaccessible (such as winning a lottery), and all are the kinds of activities that seem likely to present themselves to typical students. It, therefore, seems reasonable to use value and importance as a proxy for expected experience in this context (Feather, 1992; Hitlin & Piliavin, 2004).

In comparing FSSE and NSSE, we do not have to adjust for a different question emphasis, but we do have to acknowledge that, despite the similarity, the questions are targeted at different individuals playing different roles in the educational process.

Moreover, while the students are asked on the NSSE to report their own experiences, the faculty members on the FSSE are being asked for their perceptions of the experiences of others (Kuh, Laird, & Umbach, 2004; Kuh, 2008, pp. 21–22). The different perspectives of the respondents is especially important in a number of survey items common to NSSE and FSSE, but missing from BCSSE, which are phrased in the form “Have you, or do you plan to participate in (activity)?” In NSSE, the response choices are “have not decided,” “do not plan to do,” “plan to do,” and “done.” In the FSSE, the question is phrased in terms of how important it is for students to participate in the activity, and the response choices are “not important,” “somewhat important,” “important,” and “very important.” We have re-coded these questions in a binary form, assigning scores of 100 to the “plan to do/done” and “important/very important” responses and scores of 0 to the other responses. This re-coding is an adaptation of the same all-or-nothing re-coding used by Pike for these questions (Pike, 2006c).

A final issue of comparability stems from the use of slightly different measures and scales for otherwise similar questions in the three surveys. For example, on the BCSSE, response values for the question “How important is it to you that you do the following at this college during the coming school year? — “make a class presentation” ranges from 1 (not important) to 6 (very important). In contrast, the NSSE scale for the similar question “In your experience at your institution during the current school year, about how often have you done each of the following?” ranges from 1 to 4 (1 = never, 2 = sometimes, 3 = often, 4 = very often); the FSSE scale for the comparable question “About how often has the typical student done each of the following?” uses the same scale. We have followed the methodology used by the creators of

the NSSE in the calculation of benchmarks and resolved this inconsistency by re-coding these items to a common 100-point scale (NSSE, 2006) (see also Pike, 2006c).

Sample Reliability

One of the fundamental tenets of “the engagement movement” is that student success is self-reinforcing. Students who have performed exceptionally well at the secondary level can be expected to have high expectations for postsecondary success, and they tend to be more engaged and more successful in fulfilling their expectations. It is, therefore, important to gauge whether our sample was truly representative of the overall student population. We did this in a number of ways. First, we considered the best six entering marks for students (data were available for 718 of the 798 respondents). The mean of the best six for our BCSSE/NSSE respondents was 83 per cent, which is not significantly different from the overall population mean of 82 per cent. This suggests that the respondents were not qualitatively different from the population in terms of academic success before arriving at university. Similarly, an analysis of Winter 2006 cumulative grade averages shows that the same group was also not especially different from their peers in success through their first year: the average grade for respondents was 71 per cent, compared to the population average of 68 per cent.

One potentially significant variation is that the sample was 78 per cent female compared to the general population average of 63 per cent. It is unclear whether this difference can be expected to affect the survey results, however. Some studies have found gender effects on survey variables but, in general, demographic variables have been shown to be less important than psychological and cognitive factors such as student motivation or ability (Miller, Kuh, Paine & Associates, 2006). Indeed, we had initially hoped to include the standard sort of demographic analysis of results, relating responses to the variables of gender, visible-minority status, parental education (whether the respondent is a first-generation university attendee), and so on, but our analysis showed that these variables have very little explanatory power in this context.

Previous studies using the College Student Expectations Questionnaire and the College Student Experiences Questionnaire have not been a great deal more successful at finding

clear demographic patterns: while they found some effects (mostly and sporadically related to gender) One study concluded that “who students are was less important to engagement, achievement, and persistence than what they expect from college and subsequently experience” (Olsen et al., 1999, p. 22; Kuh, Gonyea, & Williams, 2005). As for the faculty sample, since FSSE is a confidential survey, we could not draw upon external sources to compare sample and population. However, the FSSE 2007 Respondent Characteristic Report provides some overall sample statistics that can be used. We therefore know that 60 per cent of respondents are male (69% of the population), 71 per cent are tenured (78% population), and the rank distribution is 40 per cent assistant / 38 per cent associate / 17 per cent professor (population 30%/ 35%/ 35%, respectively). The sample is thus—as might be expected of a group of faculty who primarily teach first-year courses, relatively junior, and (as an expected correlation of academic generation change) less gender-skewed. Again, there is no basis on which to suspect that these differences would invalidate the analysis.

Analysis

Quantifying the “disappointment” and “misunderstanding” gaps between the surveys is conceptually quite simple: for any given equivalent constructs, the inter-survey difference between mean scores gives a first-order measure of the magnitude (and direction) of the divergence. Accordingly, we have calculated for each individual item and for the various scalelets in aggregate a “disappointment index” (DI) by subtracting the NSSE mean from the BCSSE mean.² The higher the DI score the greater the degree to which experience failed to meet expectations. Because the BCSSE and the NSSE used the same set of respondents, this difference between means is equivalent to an aggregate mean DI score over all the individual respondents.

Similarly, a “misunderstanding index” (MI) can be calculated by subtracting the FSSE means from the NSSE means. High MI scores indicate a wider gap between student and faculty

² Thus a negative index actually represents a normatively “positive” result or “pleasant surprise” of experience exceeding expectations. The choice of sign is arbitrary and does not affect the analysis, but since most of the divergence is toward what we have labelled “disappointment” (expectations exceeding actual experience), it seems simpler to deal with mostly positive values.

assessments of the student experience. Since most of the survey items are, or have been re-coded to be, normatively “positive” — higher raw scores represent more generally desirable experiences and outcomes — a high MI, from the faculty perspective, can be interpreted as especially concentrated disbelief or skepticism that students have really achieved or encountered as much as the students themselves believed. Of course, from the student perspective, a high MI represents areas in which faculty are overly critical of student experiences. Again, as we have emphasized, this difference in perception and perspective cannot be resolved a priori in favour of either group — what is important is that the difference exists and is embedded within a pedagogical process that so intensely relies on clear communication and mutual understanding.

In what follows, we discuss salient patterns in the DI and MI results. The discussion is organized around Pike’s scalelet schema. In all cases, we report the means and the standard deviations for each of the three surveys. For each index, we report the value and the effect size (Pearson’s *r*). For clarity, differences in the mean that are not statistically significant at $p < .01$ have been omitted from the table, as have the values for survey items that are missing from BCSSE.

Level of Academic Challenge

The Course Challenge scalelet neatly exemplifies the notion of “disappointment” as we have used it (see Table 1: Course Challenge).

Table 1: Course Challenge

	BCSSE Mean (s.d.)	DI Index Effect Size	NSSE ³ Mean (s.d.)		MI Index Effect Size	FSSE Mean (s.d.)
How often have you ... worked harder than you thought you could to meet an instructor's standards or expectations? [impwrkhd workhard tworkhrd]	79.12 (21.22)	34.38 0.74	44.75 (26.11)			44.69 (20.01)
How often have you ... come to class without completing readings or assignments? {reverse coding for clunprep tclunpre corrected} [impprep clunprep tclunpre]	88.47 (16.35)	30.66 0.74	57.81 (25.81)		18.80 0.48	39.01 (30.78)
To what extent have ... your examinations during the current school year challenged you to do your very best work? [--- exams texams]			76.20 (18.23)		12.40 0.20	63.79 (20.99)
How many hours a week do you spend ... preparing for class (studying, reading, writing, rehearsing, and other activities related to your academic program)? [acprpcol acadpr01 tactprep]	63.48 (20.52)	13.72 0.49	49.76 (23.25)		19.62 0.65	30.14 (18.38)
To what extent does your institution emphasize ... spending significant amounts of time studying and on academic work? [empchol envschol fenvscho]	69.76 (23.39)		70.00 (23.91)			69.76 (26.39)
Course Challenge	75.25 (13.61)	19.63 0.75	55.62 (15.64)	59.73 (14.12)	10.19 0.21	49.54 (13.65)

It is clear that entering students had high expectations but suffered a significant reality check by the end of their first year. Students had expected to work hard, but they discovered that hard work was not necessary most of the time. Students had expected to come to class well-prepared, but they found themselves getting away without doing any preparation, and perceived that the overall workload of preparing for class was significantly lower than

³ Because one of the components of this scalelet is not present in BCSSE, two aggregate scalelet means were calculated for NSSE, one using just the BCSSE components (for calculating DI) and one with the full set of components (for MI). These are reported on the left and right, respectively of the table's last row. The same presentation is used for other subsequent scalelets with missing components.

expected. This gap could indicate that students are simply poor estimators of the effort they might have expended, but in most respects, faculty members — who should be more experienced at estimating academic effort — perceived their first-year students to be significantly less prepared for class and to be investing even less time in preparation than the students themselves reported. This pattern (BCSSE > NSSE > FSSE) suggests a pedagogically-dangerous chain of perceptions. High expectations give way to mediocre experiences and, from the instructors' perspective; even those experiences are being over-emphasized or over-reported.

These are some of the highest DI scores in the suite: clearly there is a disconnect between the image and the reality of first-year university, and that reality is subject to competing perceptions. The one bright spot might be the insignificant levels of disappointment and misunderstanding regarding institutional aspirations. Respondents on both surveys agreed that the institution emphasizes hard work, but the other results suggest that emphasis may not be operationalized very consistently or completely.

The Writing scalelet presents less conclusive and less provocative results (see Table 2: Writing).

Table 2: Writing

	BCSSE	Dis. Idx	NSSE	Mis. Idx	FSSE	
How often have you ... prepared two or more drafts of a paper or assignment before turning it in? [impdraft rewropap trewropa]	61.53 (28.00)	16.04 0.43	45.49 (31.96)	21.47 0.20	24.01 (31.23)	
How often have you ... worked on a paper or project that required integrating ideas or information from various sources [impinteg integrat tintegra]	63.28 (24.37)		65.91 (24.76)	16.44 0.39	49.47 (36.01)	
During the current school year ... number of written papers or reports of 20 pages or more? [--- writemor twrtmr05]			4.24 (12.24)	-7.81 0.39	12.05 (17.18)	
During the current school year ... number of written papers or reports between 5 and 19 pages? [--- writemid twrtmd05]			26.62 (16.13)		30.36 (21.28)	
During the current school year ... number of written papers or reports of fewer than 5 pages? [--- writesml twritsm1]			34.65 (20.98)		39.41 (23.27)	
Writing	62.41 (23.28)	6.70 0.24	55.70 (23.61)	35.32 (12.82)	4.02* 0.22	31.30 (16.68)

There is mild disappointment and similar misunderstanding about the need to prepare multiple drafts of papers. But the students' expectations about the challenges of synthesizing diverse sources of knowledge in written work appear to be validated even if faculty are somewhat dubious. There appear to be very few long (over 20-page) papers being written at all, although interestingly, faculty estimate a higher number than the students do. This is unsurprising in the overall context of first-year courses only.

The Higher-Order Thinking Skills scalelet offers a respite from the theme of student disappointment, if only because it is not present in the BCSSE and, thus, we have no gauge of student expectations (see Table 3: Higher-Order Thinking Skills).

Table 3: Higher-Order Thinking Skills

	BCSSE	Dis. Idx	NSSE	Mis. Idx	FSSE
During the current school year, to what extent has your coursework emphasized ... memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form? {reverse coding for memorize tmemoriz corrected} [--- memorize tmemoriz]			31.91 (27.26)		38.20 (28.23)
During the current school year, to what extent has your coursework emphasized ... analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components? [--- analyze tanalyze]			66.02 (25.20)		61.42 (27.01)
During the current school year, to what extent has your coursework emphasized ... synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships? [--- synthesz tsynthes]			54.58 (27.54)		53.93 (28.21)
During the current school year, to what extent has your coursework emphasized ... making judgments about the value of information, arguments, or methods such as examining how others gathered and interpreted data and assessing the soundness of their conclusions? [--- evaluate tevaluat]			56.04 (28.35)	10.35 0.11	45.69 (30.72)
During the current school year, to what extent has your coursework emphasized ... applying theories or concepts to practical problems or in new situations? [--- applying tapplyin]			65.63 (28.08)	16.94 0.44	48.69 (29.75)
Higher-Order Thinking Skills			54.84 (17.02)	5.25* 0.20	49.59 (23.03)

There is some misunderstanding, but it is mild and focused on how much coursework has required evaluation of competing sources and application of knowledge to new contexts. Interestingly, while faculty were somewhat dubious of students' abilities to synthesize information in written work (in the second Writing item), there appears to be little divergence when it comes to the synthetic content of actual courses.

Overall, these scalelets and items challenge the curricular content and process of the university. There is broad agreement that academic challenge is an important goal; but what is actually required in practice falls short of students' pre-entrance expectations, and is evaluated quite differently by the two participants in the learning experience.

Active and Collaborative Learning

The items in the Academic Challenge benchmark largely address issues of “how much” — how much effort is required to succeed; how much time must be invested (and how much of it is rote learning as opposed to synthetic activity). The next benchmark drills down more into the “how” of learning. Table 4: Active Learning and Table 5: Collaborative Learning show results for the kinds of learning activities that are often touted as the key to operationalizing a high level of challenge while maintaining engagement and avoiding discouragement.

Table 4: Active Learning

	BCSSE	Dis. Idx	NSSE		Mis. Idx	FSSE
How often have you ... asked questions in class or contributed to class discussions? [impquest clquest tclquest]	61.23 (27.07)	28.02 0.70	33.21 (24.74)		-15.91 0.45	49.12 (27.86)
How often have you ... made a class presentation? [impres clpresen tclprsnt]	37.39 (29.74)	12.62 0.36	24.77 (22.04)			24.31 (33.33)
How often have you ... participated in a community-based project as part of a regular course? [impcompr commproj tcommpro]	39.74 (26.41)	32.50 0.75	7.25 (17.89)	7.24 (17.88)		11.24 (20.69)
Active Learning Experience	46.05 (21.08)	24.34 0.76	21.71 (14.26)	21.73 (14.26)	-6.56 0.31	28.28 (18.52)

Table 5: Collaborative Learning

	BCSSE	Dis.Idx	NSSE	Mis.Idx	FSSE
How often have you ... worked with other students on projects during class? [impclgrp classgrp tclassgr]	58.45 (28.28)	31.38 0.64	27.07 (28.77)		29.86 (31.52)
How often have you ... worked with classmates outside of class to prepare class assignments? [impocgrp occgrp toccgrp]	67.23 (27.22)	9.26 0.25	57.97 (28.40)	14.11 0.35	43.86 (33.43)
How often have you ... tutored or taught other students (paid or voluntary)? [imptutor tutor ttutor]	33.32 (26.92)	13.46 0.38	19.86 (25.74)		21.11 (20.27)
How often have you ... discussed ideas from your readings or classes with others outside of class (students, family members, coworkers, etc.)? [impoidea oocideas toocid05]	59.54 (25.37)		60.56 (27.69)	21.02 0.61	39.53 (21.40)
Collaborative Learning Experience	54.55 (18.46)	13.29 0.52	41.26 (16.74)	7.54 0.32	33.73 (19.86)

Unfortunately, we see a similar pattern here, at least with respect to the disappointment index. In the NSSE, students report significantly lower levels of actual contribution to class discussion, presentations, and community-based interaction than they expected they would encounter, as indicated by BCSSE.⁴ They work less frequently with other students than they expected, either as peers in or out of class or as mentors/mentees. The only item where first-year experience seems to match up to expectation is in the discussion of ideas from coursework in settings outside the classroom. The DI suggests that students found the overall learning experience unexpectedly passive and solitary.

Faculty did not see the contrast as quite so stark. Indeed, the MI is negative for Active Learning, implying that faculty assessed the learning experience as more active than students did. On further analysis, however, this is due entirely to the influence of one significant item about asking questions in class: faculty perceived the frequency of in-class questions to be higher than that reported by students. It is reasonable to

⁴ It is worth noting here that the overall level of NSSE-reported community-based learning experiences is quite low even in absolute terms, and yet this is still a significant drop from the rather moderate level of expectations.

hypothesize that the one faculty member present in a classroom might tend to overestimate the number of questions asked, while the many students might tend to underestimate them. In a lecture scenario (and 67% of first-year classes are lectures in this asymmetric model), every question engages the instructor, but many students will only be passive listeners to the dialogue that results. This gap between NSSE and FSSE is a misunderstanding, but it may be an inherent or unavoidable one. Future research along these lines may be needed to normalize or calibrate a “standard” level for this difference rather than focus on the absolute number.

The direction of the MI swings back to positive when we look at the Collaborative Learning items, but it is dominated by different components. Faculty are primarily dubious about student experiences in regard to collaboration outside of class, either on actual class assignments or in discussing course material with others outside the classroom. This strong effect raises the question “How do they know?” Items to be discussed below specifically target outside-of-class interaction of students with faculty members themselves (see Table 6: Out-of-Class Interaction), and this item does not mention faculty members, but rather “students, family members, coworkers, etc.”

Table 6: Out-of-Class Interaction

	BCSSE	Dis. Idx	NSSE	Mis. Idx	FSSE	
How often have you ... talked about career plans with a faculty member or advisor? [impplans facplans tplans]	67.08 (26.56)	51.71 0.85	15.37 (23.92)	-17.61 0.56	32.97 (21.14)	
How often have you ... worked with faculty members on activities other than coursework (committees, orientation, student-life activities, etc.)? [impother facother tfacothr]	48.90 (26.53)	40.30 0.81	8.60 (19.18)	-10.12 0.42	18.73 (18.77)	
Have you, or do you plan to ... work on a research project with a faculty member outside of course or program requirements? [--- resrch04 fimpr05]			29.57 (45.66)	-20.43 0.33	50.00 (50.26)	
Out-of-Class Interaction	58.14 (22.25)	46.10 0.88	12.04 (17.82)	17.76 (21.15)	-17.34 0.24	35.10 (21.43)

FSSE respondents may be genuine in their belief that students do not discuss class topics with others very much, but this belief is hard to quantify — certainly harder than measuring the instructors' opinions and perceptions directly.

With some latitude, we can make the general observation that higher absolute scores on the surveys are associated with greater engagement in the learning process, or greater participation in activities thought to enhance engagement. With this in mind, we can say that the items and scalelets of the two benchmarks discussed so far present a generally consistent pattern: students entering university have fairly high expectations of engagement; as they complete first year, the students report less engagement than they had expected. And faculty evaluate students' experiences as even less engaging. The one exception so far has been the item on asking questions in class, where faculty perceived a more engaging experience or perceived themselves as more engaged in answering. The next benchmark will inevitably highlight and extend this exception.

Interaction with Faculty Members

Indeed, the response pattern for items directly addressing student-faculty interaction is nothing if not exceptional (Table 7: Course Interaction).

Table 7: Course Interaction

	BCSSE	Dis. Idx	NSSE	Mis. Idx	FSSE
How often have you ... discussed grades or assignments with an instructor? [impgrade facgrade tgrade]	68.84 (24.05)	41.34 0.81	27.50 (24.98)	-26.26 0.31	53.76 (25.08)
How often have you ... discussed ideas from your readings or classes with faculty members outside of class? [impfidea facideas tideas]	55.12 (26.73)	39.84 0.78	15.28 (24.50)	-20.59 0.60	35.87 (22.77)
How often have you ... received prompt feedback from faculty on your academic performance (written or oral)? [impfeedb facfeed tfeed]	79.15 (21.13)	37.19 0.75	41.96 (28.75)	-28.33 0.29	70.29 (25.89)
Course Interaction	67.76 (19.15)	39.41 0.87	28.35 (18.32)	-25.10 0.39	53.46 (16.40)

The DI is strong — stronger in aggregate than any of the other scalelets — representing a significant shortfall of experience compared to expectation, but the MI swings strongly the other way. Students are clearly and consistently disappointed in the access to, and contact with, faculty members, but faculty consistently see their interaction as more extensive and frequent. In previous scalelets, at least some of the items yielded weak or insignificant differences; not so for this item, each one of which seems to elicit a deep and distinct and unambiguous gap.

As hinted above with respect to active learning and in-class questions, that faculty perceive their contact with students as more pervasive than the students do themselves is not unexpected: the asymmetry of the instructor-student relationship is constantly acknowledged by educational metrics like “student-faculty ratio” (it’s always some number “to one”) and “contact hours.” But this difference in perspective is also something we can expect faculty to be aware of when they choose their responses, at least to some extent. And we know from previously discussed items that faculty may tend to downplay the level of student engagement they perceive in the student activities that do not involve direct faculty interaction.

It should be pointed out that, even considered in isolation, the level of expectation manifested in the BCSSE responses is quite aggressive. Easily the largest absolute disappointment index value is found in the “discuss career plans with a faculty member” item — there is a strong expression that this activity is important to entering students, and an equally strong indication that few students actually manage to participate in it. What we don’t know and can’t determine from these data is whether this kind of expectation is doomed to be unrealistic, although that is one explanation for the yawning disappointment gap.

The response patterns in this group, while consistent, do not allow us to assign blame or responsibility for the divergences in perception that are revealed. Nevertheless, both gaps should be examined in more detail and taken seriously. Whether student interaction with faculty is deficient or simply a victim of inflated expectations, it is clearly a sensitive point in students’ first-year experience. And regardless of whether students underestimate or faculty overestimate their level of interaction, there is some disconnect between the groups that could indicate a serious pedagogical challenge.

Enriching Educational Experiences

The most striking result in the Enriching experiences group of questions, once again manifest this pattern of strong and opposing gaps for areas where the direct involvement of the faculty with students is an aspect of the scenario. When asked how often they communicate with instructors through e-mail, students express significant disappointment, and instructors in turn report significantly higher contact frequency (see Table 8: Information Technology).

Table 8: Information Technology

	BCSSE	Dis.Idx	NSSE	Mis.Idx	FSSE
How often have you ... used an electronic medium (list-serv, chat group, Internet, etc.) to discuss or complete an assignment? [impitac itacadem titicade]	49.63 (28.01)	-14.57 0.36	64.20 (29.72)		64.86 (34.72)
How often have you ... used e-mail to communicate with an instructor? [impemail email temail]	67.7 (25.91)	18.04 0.48	49.72 (28.70)	-27.70 0.29	77.42 (26.08)
To what extent does your institution emphasize ... using computers in academic work? [empcompt envcompt fenvcomp]	59.63 (26.57)	-18.70 0.47	78.33 (25.23)		82.29 (21.60)
Information Technology	58.91 (20.99)	-5.14 0.20	64.05 (19.22)	-10.80 0.17	74.85 (18.87)

In fact, the misunderstanding gap is even wider than the disappointment gap — the FSSE raw score is actually higher for this item than the BCSSE raw score — which is a pattern that did not generally hold even in the contentious items of the Faculty Interaction benchmark. This result is even more salient in the context of the rest of the Information Technology scalelet, which demonstrates that student disappointment is generally negative with respect to the use of, and emphasis on, advanced technology in the curriculum. In an overall atmosphere of mild to severe disappointment, students are pleasantly and significantly surprised that the technological astuteness of the institution is better than they expected. Except when it comes to dealing with faculty. This underscores that the “direct contact” effect is an important influence on experiential perceptions and expectations.

With respect to experiences of sociocultural diversity in the university environment, students’ level of disappointment is rather limited and weak (see Table 9: Diversity).

Table 9: Diversity

	BCSSE	Dis. Idx	NSSE	Mis. Idx	FSSE
How often have you ... had serious conversations with students of a different race or ethnicity than your own? [impdicon divrstud tdivrstu]	53.85 (28.40)		51.46 (32.88)	19.38 0.54	32.08 (22.78)
How often have you ... had serious conversations with students who differ from you in terms of their religious beliefs, political opinions, or personal values? [impdich2 diffstu2 tdiffstu]	55.45 (28.14)		56.55 (31.39)	23.62 0.64	32.92 (20.75)
To what extent does your institution emphasize ... encouraging contact among students from different economic, social, and racial or ethnic backgrounds? [empdivrs envdivrs fenvdivr]	66.59 (27.35)	11.87 0.30	54.72 (31.26)	15.89 0.16	38.83 (32.52)
Diversity	58.64 (23.80)	4.40 0.15	54.24 (23.83)	19.36 0.64	34.88 (18.72)

In fact, the two items addressing personal experience demonstrate no significant disappointment value at all. Somewhat disturbingly, it is only when assessing the emphasis that the institution itself places on encouraging contact across social barriers that students report some mild disappointment. Faculty not only share this doubt about the goals of their institution, only more so, because their responses reveal an even lower score for this item. And where students are not noticeably disappointed about their own personal experience, faculty are sceptical on their behalf, showing a fairly severe misunderstanding gap on the other items in this scalelet.

Interpretation of the Varied Experiences scalelet is somewhat hampered by a perspective and emphasis shift in the questions. Students were asked about their plans, faculty about the importance of the activities described (see Table 10: Varied Experiences).

Table 10: Varied Experiences

	BCSSE	Dis. Idx	NSSE	Mis. Idx	FSSE
Have you, or do you plan to ... participate in a practicum, internship, field experiences, co-op experience, or clinical assignment? [--- intern04 fintern]			57.16 (49.52)	-13.67 0.24	70.83 (45.69)
Have you, or do you plan to ... participate in community service or volunteer work? [--- volIntr04 fvoluntr]			77.27 (41.94)	36.03 0.54	41.24 (49.48)
Have you, or do you plan to ... participate in a learning community or some other formal program where groups of students take one or more classes together? [--- lIncom04 flerncom]			28.38 (45.12)	-20.07 0.33	48.45 (50.24)
Have you, or do you plan to ... take foreign-language coursework? [--- forlng04 fforlang]			37.45 (48.43)		29.90 (46.02)
Have you, or do you plan to ... study abroad? [--- stdabr04 fstudyab]			42.84 (49.52)		45.83 (50.09)
Have you, or do you plan to ... participate in an independent study or self-designed major? [--- indstd04 findst06]			13.53 (34.23)	-46.26 0.65	59.79 (49.29)
Have you, or do you plan to ... participate in a culminating senior experiences (comprehensive exam, capstone course, thesis, project, etc.)? [--- snrx04 fsenior]			22.24 (41.61)	-57.14 0.40	79.38 (40.67)
How many hours a week do you spend ... participating in co-curricular activities (organizations, campus publications, student government, social fraternity or sorority, intercollegiate or intramural sports, etc.)? [cocurcol cocurr01 tactcocou]			13.70 (15.86)	-9.58 0.18	23.28 (12.46)
To what extent does your institution emphasize ... attending campus events and activities (special speakers, cultural performances, athletic events, etc.)? [empevent envevent fenveven]			64.96 (27.93)		59.03 (26.26)
Varied Experiences	n/a	n/a	19.73 7.76)	-11.63 0.20	51.36 (19.96)

Nevertheless, there are some wide disagreements, and the pattern of responses is interesting. Students are clearly more enthusiastic than faculty about community service and volunteer work. But faculty consider co-curricular activities like practica, co-op terms, and internships more important than other activities. Faculty also ascribe more importance to structured learning groups, independent study and self-designed majors, and capstone projects. These last three items share an emphasis on the actual practice of education, in particular, the experiences that may well be perceived as remote from the pressing concerns of first-year university life. So, on the one hand, it is not surprising that first-year students are comparatively uninterested in senior theses and projects; on the other hand, it indicates that first-year students are not being sufficiently coached on how to prepare fully for the more advanced and personalized learning experiences they will eventually come to desire and seek out.

The final weakly-significant but notable misunderstanding here has to do with the amount of effort students invest in co-curricular activities. Previously discussed results might lead us to suspect that FSSE respondents would continue to estimate lower values than the students themselves. Previously, we saw a general scepticism about the time and energy that students put into class preparation and assignments. But on this item, faculty seem uncharacteristically charitable. Without making too much of this tentative observation, it is possible that, yet again, where student activities that do not directly involve faculty members, they tend to be viewed by faculty members as more authentic, more engaged, and more legitimately experienced than in-class and in-course activities.

Supportive Campus Environment

Thus far, many questionnaire items have demonstrated reinforcing or counteracting gaps between the pairs of surveys analyzed. In the Supportive Campus Environment benchmark, this is not the case (see Table 11: Intrapersonal Environment).

Table 11: Intrapersonal Environment

	BCSSE	Dis. Idx	NSSE	Mis. Idx	FSSE
Quality of your relationships with ... other students? [--- envstu fenvstu]			80.71 (20.73)		80.14 (17.84)
Quality of your relationships with ... faculty members? [--- envfac fenvfac]			64.41 (20.79)	-10.07 0.15	74.48 (17.60)
Quality of your relationships with ... administrative personnel and offices? [--- envadm fenvadm]			61.35 (22.50)		60.99 (21.52)
Interpersonal Environment	n/a	n/a	68.79 (16.68)		72.16 (14.62)

The Intrapersonal Environment scalelet, which has no BCSSE counterpart and thus no disappointment index scores at all, shows only one weak significant misunderstanding score. At this point it should be no surprise that it is the item dealing with students having direct interaction with faculty, and that FSSE score is higher than the NSSE score. Students generally claim fairly good relationships with their instructors (though not quite as good as with their peers), but faculty members claim an even stronger bond. As for the relationships among students and between students and staff, there is remarkable agreement between students and faculty on their responses. It should be noted that all those relationships are rated as fairly high quality by both populations.⁵

Similarly, there is no significant student-faculty misunderstanding over institutional factors related to student support (see Table 12: Support for Student Success).

⁵ It is interesting to contemplate what a sampling of staff opinions might reveal on this issue.

Table 12: Support for Student Success

	BCSSE	Dis. Idx	NSSE	Mis. Idx	FSSE
To what extent does your institution emphasize ... providing the support you need to help you succeed academically? [empsuprt envsuprt fenvsupr]	85.71 (17.74)	14.31 0.44	71.40 (25.11)		75.26 (23.71)
To what extent does your institution emphasize ... helping you cope with your non-academic responsibilities (work, family, etc.)? [empnacad envnacad fenvnaca]	60.21 (26.57)	17.51 0.43	42.70 (29.11)		47.37 (28.17)
To what extent does your institution emphasize ... providing the support you need to thrive socially? [empsocal envsocal fenvsoca]	61.50 (25.49)	8.04 0.22	53.46 (28.47)		53.90 (28.96)
Support for Student Success	69.16 (18.67)	13.32 0.45	55.83 (21.81)		58.51 (21.32)

However, students are generally somewhat disappointed with the levels of support they receive, most notably for non-academic challenges. This is not to say that there is significant dissatisfaction reported — initial expectations are quite high and even the disappointed students indicate their belief that the institution provides a great deal of needed support, especially academic. In the end, it is difficult to make any general claims about these items and this dimension of engagement.

Conclusions

There are substantial and persistent differences between the responses to the three NSSE surveys. In most areas measured by the surveys, students in retrospect rate their first-year experience as less engaging than they had expected it to be before entering university. The sole exception to this trend (other than indifference about some aspects of the experience) is a finding that information technology use and emphasis is more pervasive than expected; the net result being not unhappy or disgruntled students. So it is possible to argue that all the disappointment measured by the index is an inevitable side-effect of the perspective-broadening that remains a central tenet and goal of the university experience. Nevertheless, the extent to which first-year activities do not

conform to prior expectations is potentially troubling — either students' expectations are unrealistic or the experience fails to meet students' expectations in partial but noticeable ways. Universities need to understand where and why this student disappointment is most acute, and be careful to examine these potential trouble spots in more detail. When we compare how faculty assess students' experiences with how students assess their own experiences, the results are strongly bimodal. When the activity does not involve direct interaction with an instructor, instructors are quite sceptical (in comparison with the students) about the value of the engagement extracted from or invested in the activity. To some degree, we must acknowledge that students tend to be idealistic about their once-in-a-lifetime university experience, while faculty tend to have a more cynical or prosaic view. Neither is truly objective but, according to FSSE respondents, the NSSE respondents' diminished assessments are still too generous, at least for experiences not related to direct interaction.

But for activities involving direct interaction, faculty in contrast tend to be more positive than the students and report greater frequency of, participation in, or value of that interaction. The misunderstanding in this relationship swings both ways, and is undoubtedly a product of subjectivity and misperception on both sides of the gap, but if students and faculty are so consistently unable to value experiences in the same way — especially the activities involving both groups at the very heart of the pedagogical mission — then we have the potential for erosion of educational effectiveness and for the disengagement that can undermine students' success.

More important, the cleavage in misunderstanding between faculty-involved and non-faculty-involved activities represents a basic lack of communication between students and faculty. Students report less interaction with faculty than they had expected, which is one of the most acute areas of disappointment, and faculty simply do not agree. If the students are right, then the faculty members are not acknowledging the problem, which could lead to more fractious relations. If the faculty are right, then the students are making excessive and unreasonable demands on an already stressed resource, which could also lead to problems. The failure of each group to understand the perspectives and concerns of the other could confound efforts to improve how they work together to pursue the overall education mission.

These observations are not a call to the barricades nor a sign of impending disaster. Despite measurable disappointment and misunderstanding, the respondents reported overall satisfaction and engagement — an acceptable result. And if we examine some NSSE metrics for learning outcomes, we find that the levels of comparable disappointment and misunderstanding are rather minor compared to those found in some of the experiential measures. Table 13: Outcome Measure: Gains in Practical Skills and Table 14: Outcome Measure: Gains in General Education summarize the same DI/MI results for the two learning outcomes used by Pike to test the explanatory power of his scalelet model.

Table 13: Outcome Measure: Gains in Practical Skills

	BCSSE	Dis. Idx	NSSE	Mis. Idx	FSSE
To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in ... using computing and information technology? [cmpcomp gncmpts tgncmpts]	53.68 (21.35)	-8.95 0.26	62.63 (28.76)		68.63 (25.90)
To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in ...analyzing quantitative problems? [cmpquant gnquant tgnquant]	56.15 (19.82)	-8.59 0.26	64.74 (28.41)	13.19 0.14	51.55 (27.85)
To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in ...acquiring job or work-related knowledge and skills? [cmpwork gnwork tgnworkk]	60.97 (21.77)	9.01 0.24	51.95 (30.46)		48.78 (27.81)
Gains in Practical Skills	56.94 (14.17)	-2.80 0.12	59.74 (22.32)		55.84 (21.27)

Table 14: Outcome Measure: Gains in General Education

	BCSSE	Dis. Idx	NSSE	Mis. Idx	FSSE
To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in ... writing clearly and effectively? [cmpwrite gnwrite tgnwrite]	61.58 (19.18)	5.61 0.17	55.96 (28.57)		50.39 (31.83)
To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in ... speaking clearly and effectively? [cmpspeak gnspeak tgnspeak]	58.95 (20.02)	12.24 0.33	46.71 (30.77)		41.76 (29.74)
To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in ... thinking critically and analytically? [cmpthink gnanaly tgnanaly]	62.57 (19.21)	-9.36 0.29	71.93 (24.94)	15.22 0.39	56.71 (32.59)
To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in ... acquiring a broad general education? [cmpgened gngenled tgngenle]	63.45 (16.90)	-8.34 0.29	71.80 (23.99)	15.17 0.43	56.63 (28.86)
Gains in General Education	61.64 (14.11)		61.60 (20.98)	10.36 0.35	51.25 (24.76)

No matter how disappointed students might be with some aspects of their educational experience, their overall impression of the outcomes is at worst neutral and with respect to practical skills even slightly positive (i.e., a negative DI) compared to expectations. The gap between faculty and student perceptions is still present but limited, and for the most part the overall impression is still on the positive side. In other words, first-year university may not live up to the hype but is still seems to be seen as a productive and satisfying experience by all those involved (learners and teachers).

We have intentionally approached these gaps in perception in an abstract manner, in part due to the preliminary status of this kind of analysis. Future efforts, however, should try to contextualize the gaps in disappointment and misunderstanding, and measure them in light of institution-specific values and priorities. Crafting successful initiatives to close these gaps in practice will require sensitivity to an institution's unique mission and goals and understanding of the particular programs and policies that tend to widen or narrow the disparities between expectation and experience.

One of the particularly promising aspects of this research and the data sets is the availability of BCSSE and NSSE results for the same individual respondents. We have been able to compare, without sample variation, the responses given to similar questions both before and after a significant transition in students' academic careers. This same cohort of students just completed their final year of university, and we intend to survey them with NSSE, whose responses will produce another set of interesting comparisons because we will be able to track how experiences (and levels of disappointment) evolved over the course of the four-year honours curriculum. Initial comparisons between different cohorts of NSSE respondents (contemporaneous first-year and final-year samples) suggest, as might be expected, that student perceptions change significantly as the individual progresses through the mind-expanding cyclical levels of increasing intensity in their university studies and activities. We will also be able to compare FSSE responses — from instructors who primarily teach senior-level courses — with those senior-level NSSE results. These possible surveys may offer different views of the disappointment and misunderstanding gaps — or perhaps reveal completely new and different gaps altogether.

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